

## ABSTRACT

Described is a method and system for interacting with a modeling layout algorithm that enables incremental and interruptible automatic layout operations. A defined set of interfaces (e.g., of a COM object) are described for layout engines, and a modeling engine calls into these interfaces to start and stop the layout process, preserve and restore state information, and perform other functions. The layout engine, which is preferably a pluggable component, raises events through an interface with which it complies to indicate its progress, and to indicate when the engine may be safely interrupted. The modeling engine can call back into the layout engine to stop the layout if the user has requested that the layout be interrupted, providing interfaces to the layout engine for preserving and restoring its state, thereby enabling incremental layout operations that do not lose progress.